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Serum Cytokine Levels and Their Relation to Clinical Features in Patients with Autoimmune Liver Diseases

Akberova D., Kiassov A., Abdulganieva D.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Serum cytokine levels were explored in a combined group of patients with autoimmune liver diseases (AILDs) and separately in patients with autoimmune hepatitis (AIH) and overlap syndrome. Overall, 60 patients with AILD, among them 32 patients with AIH and 28 patients with overlap syndrome, were included in the cross-sectional study. Serum cytokine levels were measured at baseline and compared to those of 21 healthy controls. Patients with AILD had significantly higher levels of IL-6 (0.70 (range 0.17-99.86) in patients with AILD compared to 0.40 (range 0.14-2.65) in controls, $p < 0.01$), IL-8 (1.66 (0.45-34.58) versus 0.53 (0.35-2.38), resp., $p < 0.01$), and TNF-α (2.61 (0.23-120.88) versus 1.65 (0.21-7.54), resp., $p < 0.01$). Adjusted logistic regression analysis revealed a pronounced relation of IL-8 and AILD, 48.36 (3.63-643.60), as well as AIH, 18.54 (1.08-318.54), and overlap syndrome, 23.85 (2.37-240.23), while the associations between the level of other cytokines and AILD were assessed as nonsignificant. In the language of absolute numbers, the increase of IL-8 serum level by 1 pg/mL had increased the chance for a patient to find himself in a group of AILD by 48.36 times. Also, high IL-8 serum levels were strongly related to clinical parameters.

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